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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,617	12/12/2003	Raymond C. Kurzweil	14202-003001	1650

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EXAMINER	
MARC, MCDIEUNEL	

ART UNIT	PAPER NUMBER
3664	

MAIL DATE	DELIVERY MODE
12/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/734,617	KURZWEIL, RAYMOND C.	
	Examiner	Art Unit	
	McDieunel Marc	3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2007*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

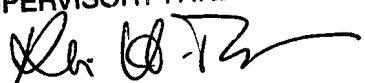
1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

KHOI H. TRAN
SUPERVISORY PATENT EXAMINER



Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are pending for examination.

2. The objection to the abstract had been withdrawn.

3. The rejection to claim 16 under 35 U.S.C. 112, second paragraph had been withdrawn.

4. The rejection to claims 1-4, 7-15 and 17-20 under 35 U.S.C. 102(b) as being anticipated by **Hasunuma *et al.*** (***Development of Teleportation Master System with a Kinesthetic Sensation of Presence*, 1999**) has been maintained.

5. The rejection to claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hasunuma *et al.*** has been withdrawn.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, 7-15 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by **Hasunuma *et al.*** (***Development of Teleportation Master System with a Kinesthetic Sensation of Presence*, 1999**).

As per claims 1 and 13, **Hasunuma *et al.***, teaches a teleportation system and an associated method having a virtual reality encounter system comprising (see figs. 1 and 2), motion sensors positioned on a human user (see figs. 1 and 2, wherein operator being taken as human user), the motion sensors sending motion signals corresponding to movements of the user as detected by the motion sensors relative to a reference point the motion signals sent over a communications network (see figs. 1 and 2); a set of goggles worn by the user, the goggles including a display to render video signals received from the communications network from at least one camera (see figs. 1 and 2, wherein the virtual reality head mounted display (HMD) unit being worn by the user); and a humanoid robot (see figs. 1 and 2), receiving, from the communications network (see figs. 1 and 2), the motion signals to induce movement of the robot according to movement of the human user (see figs. 1 and 2); with respect to claim 13, sending motion signals from motion sensors positioned on a human user (see figs. 1 and 2), the motion signals corresponding to movements of the human user (see section 1, first paragraph, wherein human user being considered as operator, as noted above) as detected by the motion sensors relative to a reference point (see figs. 1 and 2). Note: The entire concept of this application has been embedded into Hasunuma's et al. publication. See entire publication.

As per claims 2 and 14, **Hasunuma *et al.***, teaches a teleportation system and an associated method wherein the robot includes actuators corresponding to the motion sensors, the actuators causing the robot to move (see figs. 1 and 2, particularly the humanoid which contains motion sensors, actuator *etc.*).

As per claim 3, **Hasunuma *et al.***, teaches a teleportation system wherein the robot has life-like features, the robot comprises: a body; a camera coupled to the body, the camera for sending video signals to the communications network; and a microphone coupled to the body, the microphone for sending audio signals to the communications network (see fig. 1, particularly the Humanoid Robot), note that this particular robot contains a camera couple the head which a part of the body for sending video signals to the control Cockpit. Also this particular robot contains audio signals capability and antenna in the back of the robot indicates wireless network connection.

As per claim 4, **Hasunuma *et al.***, teaches a teleportation system that further comprising: a set of goggles including a display to render the video signals received from the camera and a transducer to transduce the audio signals received from the microphone (see fig. 1 as noted above and fig. 2, particularly the HMD).

As per claim 6, **Hasunuma *et al.***, teaches a teleportation system wherein the communications network comprises (see figs. 1-2, as noted above): a first communication gateway in the first location (see fig. 1, wherein the Humanoid Robot's location being considered as the first locaiton); and a second communication gateway in the second location (see fig. 1, wherein the Cockpit being considered as the second commutation gateway), the second processor connected to the first processor via a network (see fig. 1, wherein the Cockpit processor being connected the robot's processor).

As per claim 7, **Hasunuma *et al.***, teaches a teleportation system wherein the communications network comprises an interface having one or more channels for: receiving the

audio signals from the microphone; receiving the video signals from the camera; sending the audio signals to the set of goggles; and sending the audio signals to the transducer (see fig. 1 and figs. 2 and 3, particularly the HMD from figure 2, as noted above).

As per claim 8, **Hasunuma *et al.***, teaches a teleportation system wherein the body includes an eye socket and the camera is positioned in the eye socket (see fig. 1, particularly the camera).

As per claim 9, **Hasunuma *et al.***, teaches a teleportation system wherein the body includes an ear canal and the microphone is positioned within the ear canal (the robot of figure being considered as having an ear canal and its microphone can be placed anywhere as far design is concerned).

As per claim 10, **Hasunuma *et al.***, teaches a teleportation system wherein the set of goggles, comprise a receiver to receive the video signals (see fig. 2, element HMD).

As per claim 11, **Hasunuma *et al.***, teaches a teleportation system wherein the robot, comprises a transmitter to wirelessly send the audio signals, motion signals and the video signals to the communications network (see figs. 1 and 2 as noted above).

As per claim 12, **Hasunuma *et al.***, teaches a teleportation system that further comprising: a first communication gateway in the first location the first communication gateway further comprising: a computing device that receives the motion signals and transmits the motion signals over the communications network (see fig. 1, wherein the robot's computer being serve as computing device).

As per claim 18, **Hasunuma *et al.***, teaches a teleportation method sending audio signals over the communications network, the audio signals being produced from a microphone coupled to the robot (see fig. 1, see section 2.1, first paragraph); sending the video signals to the communications network (see fig. 1, wherein the arrow between the Cockpit and Humanoid show proof or two way commutation, particularly "audio-visual"), the video signals being produced from a camera coupled to the robot (see the Humanoid camera as noted above); rendering the video signals received from the communications network using a display embedded in a set of goggles (see figs. 1-2, particularly the control Cockpit); and transducing the audio signals received from the communications network using a transducer embedded in the set of goggles (see figs. 1-2, as noted above).

As per claim 17, **Hasunuma *et al.***, teaches a teleportation method wherein the robot includes an eye socket and the camera is positioned in the eye socket (see fig. 1, particularly the camera, as noted above).

As per claim 18, **Hasunuma *et al.***, teaches a teleportation method wherein the robot includes an ear canal and further comprising positioning the microphone within the ear canal (the robot of figure being considered as having an ear canal and its microphone can be placed anywhere as far design is concerned, as noted above).

As per claim 19, **Hasunuma *et al.***, teaches a teleportation method wherein the set of goggles, comprises a receiver to receive the video signals (see fig. 2, element HMD as noted above).

As per claim 20, **Hasunuma *et al.***, teaches a teleportation method wherein the robot further comprises a transmitter to wirelessly send the audio signals, the motion signals and the video signals to the communications network (see figs. 1 and 2, as noted above).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hasunuma *et al.***

As per claim 5, **Hasunuma *et al.***, teaches essential features of the invention substantially as claimed with the exception of a second humanoid robot in the second location, and a second set of goggles to receive the video signals; and with respect to claim 16, a second mannequin.

However, it would have been obvious to modify Hasunuma *et al.* teachings by using more than one robot/mannequin, that would require more than one goggle to receive video signals or any signals, because modification would have been a desire feature into Hasunuma *et al.* teachings in order to improve the usability and the functionability of system as a whole.

Response to Arguments

10. As to the reference not teaching "a set of goggles worn by the user, the goggles including a display to render video signals received from... the at least one camera coupled to houmandoir robot..." (see Hasumura's et al. figs. 1-2), as noted by the applicant's representative, the "HMD" is nothing but a set of goggles to provides video signals to the user through its display, and note that the robot's head contains a camera.

With respect to receiving video signals from communication network (see Hasumura's et al. fig. 1), wherein the arrow has been shown clear evidence of wireless network communication between the robot the user.

As to the reference not teaching "a second humanoid robot and a second set of goggles" Examiner maintain his position by stating: it would have been obvious to modify Hasunuma *et al.* teachings by using more than one robot/mannequin, that would require more than one goggle to receive video signals or any signals, because modification would have been a desire feature into Hasunuma *et al.* teachings in order to improve the usability and the functionability of system as a whole, as seen above.

Note: The following argument is based on the remark filed on 10/31/2007.

11. As to the reference not teaching "motion sensors positioned on a human user, the motion sensors sending motion signals corresponding to movements of the user as detected by the motion sensors relative to a reference point the motion signals being sent over a communications network" (see fig. 1, and the abstract, wherein kinesthetic sensation, reacting force sensation of slave robot arms have been shown evidence of motion sensors that being positioned on the user,

specially the master arm can provide the user with locomotive sensation of a humanoid robot. Hasunuma's et al. as a whole is expected to provide sensation of telexistence when teleoperating a humanoid and human friendly robot).

"a microphone coupled to the body of the robot" (see section 2.1, particularly "audio-visual", bear in mind that the audio part of the teaching covers the microphone limitation).

"a transducer disposed in a headset worn by the user" (see page 2, second colon first paragraph wherein transducer stands for a device that converts an input signal of one form into an output signal of another form).

"sending motion signals from motion sensors positioned on a human user, the motion signals corresponding to movements of the human user as detected by the motion sensors relative to a reference point, the motion signals being transmitted over a communications network, receiving video signals from a camera via the communications network, with receiving using a set of goggles worn by the user, the goggles including a display to render the received video signals from the camera, receiving, at a humanoid robot, the motion signals ... sending video signals received from the camera positioned on the humanoid robot to the goggles, via the communication network ...." (see figs. 1-2 as taught above).

"a second humanoid robot in the second location, the second humanoid robot having a second microphone and a second camera for sending audio and video signals over the communication network ... a second set of goggles worn by a second user at the first location to receive the video signals from tile first camera ... and a second earphone worn by the second user ... to receive the audio signals from the first microphone ...." (see figs. 1-2 as taught above as well as the rationale on audio).

12. Applicant's arguments filed 10/31/2007 have been fully considered but they are not persuasive.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to McDieunel Marc whose telephone number is (571) 272-6964. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M. Marc

McDieunel Marc
Examiner
Art Unit 3664
Tuesday, December 04, 2007
MM/

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SUPERVISORY PATENT EXAMINER